is constant, the force of gravity will be constant and the (absolute)* pressure exerted by the pound weight will be invariable. So, if the valuing force of the human mind is constant, the value of the dollar will be invariable. But while the mass of the earth would appear to be pretty nearly constant and the pressure exerted by the pound weight in consequence invariable, invariability cannot be predicated of the value of the dollar. The value of the dollar is equal to the value of what it will buy, and this is a variable. This variable depends on the one hand upon the number of physical units of goods which the dollar will buy, and on the other hand upon the value of a unit. That is, it depends upon the "purchasing power" of money as reflected in prices and explained by Mill and the other economists, and upon the general level of final utilities.

But for money to perform perfectly the functions of a representative of value, of a measure of value and of a standard of deferred payments, its value must be stable. The conditions of stability are "the materialization, as it were, of the ultimate unit of value and its practical application to the measurement of value," and "such regulation by government of the amount of money that prices and total price shall correspond exactly with value and total value." For a discussion of the obstacles to the realization of these conditions, the writer would refer to the paper in the ANNALS already mentioned. These obstacles are at present insurmountable and may always be so. But, supposing them surmounted, money would be a perfect representative of value—a perfect measure of value and a perfect standard of deferred payments.

L. S. MERRIAM.

AN UNFINISHED STUDY BY DR. MERRIAM.

In addition to the paper on "Money as a Measure of Value," Dr. Merriam, just before his death, had in hand a more extended paper on a similar subject. It would have replied to Professor Ross' paper on "Money as a Standard of Deferred Payments," and would have carried the discussion to some ulterior conclusions not reached, as yet, in the published papers. If his notes had been more complete it would have been best to print them without change or comment. They would have represented, in a direct way, Dr. Merriam's view, and would have afforded, to a discerning reader, an idea of the character of the article that was taking shape in the author's mind, as well as an idea of the fruitfulness of the further work that this brilliant young economist had immediately before him.

* Absolute, because whatever the force of gravity the relative pressure of the pound weight will be invariable, the earth's attraction being exerted uniformly on everything in proportion to its mass.

As the notes are too incomplete to be thus published, I can do no more than to present, in Dr. Merriam's words, where this is possible, the points to which he had given a somewhat full expression.

Of the "final utility" standard of deferred payments Dr. Merriam says that it should not be judged on the supposition that the final utilities of articles consumed necessarily grow less as incomes increase. They may do this; but is not to be assumed that they necessarily will. If the influences cited by Professor Patten in his recent paper on "Cost and Expense" are present in sufficient force the final utilities of articles consumed may even rise. Goods may increase in quantity, and influences that are at least possible may still make the utility of the final increments of them larger than they were before the increase took place. The objection to the value standard of deferred payments that is based on the supposition that final utilities necessarily fall with growing prosperity is, therefore, not valid.

An objection to any standard that may be based on total utility is the fact that the first increments of many things consumed have an importance that is beyond computation. If general comparisons are to be made between the total utility of the articles consumed by society at one period and that of the articles consumed at another period, the process encounters the difficulty that the figure which expresses the measure in both cases is infinity.

Concerning the allegation that a man who has bought a thing for consumption would not relinquish it for what he gave for it, Dr. Merriam notes that this is only saying that he would not undo an act of production. If the shoemaker were to take back his shoes, and relinquish the food, clothing, etc., that he has obtained in exchange for them, he would relinquish his part of the gain that society realizes by exchanges. Almost the entire gain that comes from production may depend on exchanges, and be neutralized if the exchanges fail to take place. If division of labor were to continue, and if exchanges were to cease, the total subjective satisfactions of society would become almost infinitely less, as each man would have a superfluity of the things that he would not want, and scarcely anything that he would want. Before exchanges take place total utility is exceedingly small. After them it is great; and it is greatest when exchanges have been carried to exactly the right extent. In estimating the market value of the things that a man produces, we take for granted the fact that commerce will take them to the points where they will yield the maximum of benefit. We assume that the concrete things that a man makes will diffuse themselves through society, and find their way to the places where they will do the most good. We give them credit for this ulterior service that they will, by means of exchanges, be

enabled to render, when we estimate their value in the hands of producers. Value vanishes when the system of exchanges is anywhere impaired. As Jevons and Marshall have indicated, it is the very essence of the philosophy of exchange that the parties to it gain up to the very point at which they stop exchanging.

Anticipating and, as it were, discounting this gain, a man may impute a high productivity to his own labor, though he is engaged in producing things that he does not want. The shoemaker's virtual product, in so far as he himself is concerned, is not so many dozen pairs of shoes in a year, but a few pairs of shoes, two or three suits of clothes, a certain amount of food, etc.

From the social point of view the effect of exchange in creating value is also anticipated and discounted. Value is imputed to the vast number of things that are passing through the hands of a series of producers, notwithstanding the fact that if they were to stay where, at the moment, they are, that value would be nearly annihilated. As food has a value to the body before it is eaten, because we know that when it is eaten it will be properly apportioned among the different members, so goods of every kind have value to the social organizer as a whole, because we are able to count on the fact of a proper distribution of them to the members of society.

Citing Professor Ross' assertion that "total value is a legitimate conception and has meaning" when goods are "en route to the consumer," Dr. Merriam prefers to say that the expression has meaning to those who go through the mental process of supposing that the goods have already reached their consumers. If by any chance they should stop on the way, most of the value would vanish.

By his study of the nature of the exchanging system, on which the value of an article, even to an individual producer, depends, and on which the value to society of the mass of products in the workshops of society also depends, Dr. Merriam is led to accept the view that value is social. To different individuals the final utilities of things are different. The possession of great wealth causes one man to value his final increment of a thing very little; while poverty may make another man value it highly. Differing tastes are an element in the comparative estimates made of the same list of articles by different men. Some value the article A more than the article B, while others value B more than A. Each man has what, in graphic representation, is his "utility curve;" and no two of these will be alike. By reason of free exchanges there is an economic resultant from the action of many consumers and of many producers. An article has a final utility to society; and it is on the basis of this final social utility that articles are exchanged in the market. Dr. Merriam had given

earnest and fruitful thought to this phase of the subject, but the notes that he had made do not record the full results that he must have reached. He notices, however, that where a debtor returns to his creditor a smaller value than he has received, there is a probability of a certain derangement, whereby all society suffers. The total utility of things consumed by all men becomes, in the aggregate, less.

There are a few other notes specifically referring to points in Professor Ross' paper. These if published in a fuller and more connected form, would make the bearing of the foregoing argument, on the questions at issue concerning the proper standard of deferred payments, very clear. To the reader who compares the papers already published with each other and with the fragmentary argument above given, the bearing of that argument will be plain. It is known that Dr. Merriam had in mind a statement of the relation that money bears to the different standards proposed for deferred payments. He would have shown that, as a tool of the market, money can express valuation, but never total utility. He would have offered a powerful argument in favor of the value standard for deferred payments, in contrast with the standard that requires the return by a borrower of the same kinds and quantities of goods that he has received, or again, one that requires the return of the same total utility that was borrowed. Even in its incompleteness the reasoning on this general point merits close attention. It will yield large fruits to the reader who will try to complete it.

Amherst College, Mass. JOHN B. CLARK.

SCHOOL SAVINGS BANKS

The general interest manifested in our school method of inculcating economy and in the results of systematic saving in the public schools is assurance that further record of its steady progress will be of value to members of the Academy.

Up to April, 1893, when we collected the last statistics of the work in the United States, there were 325 public schools using the School Savings Banks system, the deposits of the pupils at that date being $350,634.62. Several schools have since taken up the system as described in a paper published in the ANNALS of July, 1892. These schools, now numbering about 340, with three or four exceptions, administer the system in close line with the given details, and report most satisfactory and encouraging results. The work and responsibility of administration was minimized for the teacher by close study by the founder of this system, and though individual school authorities may find slight local differences advantageous they accept with generous approval the easy method, as adapted from the French, of administering School Savings Banks.